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Orr, Rob Marc; Pope, Rodney R; Johnston, Venerina; Coyle, Julia

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THE OPERATIONAL LOAD CARRIAGE CONTEXT OF THE AUSTRALIAN ARMY SOLDIER.

R.M. Orr[1], R. Pope[2], V.Johonston[3], and J. Coyle[2]

[1]School of Health Sciences and Medicine, Bond University, Australia
[2]School of Community Health, Charles Sturt University, Australia
[3]Division of Physiotherapy, University of Queensland, Australia

Corresponding author: rorr@bond.edu.au OR Robin.orr@defence.gov.au

INTRODUCTION

Military soldiers are required to carry loads as part of their occupation. These loads have led to injuries and even mortalities on the battlefield (Orr *et al.*, 2011). Recent evidence suggests that the absolute loads carried by Australian Army soldiers are increasing (Orr *et al.*, 2010). The intent of this study was to investigate the loads carried by Australian Regular Army soldiers on operations and the contexts in which these loads are carried.

METHODS

Load carriage data were collected through an online questionnaire from experienced Australian Army soldiers representing Combat Arms, Combat Support Arms and Combat Service Support Corps. Captured survey data were triangulated against open-source operational information. Ethical approval was granted by the Australian Defence Human Research Ethics and University of Queensland Behavioural and Social Sciences Ethical Review Committees.

RESULTS

A total of 301 respondent reports were collected. Grouped data revealed soldiers reportedly carrying a mean load of 47.7 kg or 56% of respondents' mean body weight. The differences in operational loads, both absolute and relative, carried between corps were significant with Combat Arms Corps carrying heavier loads than Combat Service Support Corps. Female soldiers (11% of responses) reported carrying significantly lighter *absolute* loads (*M*=26.4 kg) than their male counterparts (*M*=39.0 kg) although no significant differences were found in *relative* loading (*M*=43% BW, *M*=47% respectively). The lightest and heaviest 20% of male respondents carried similar *absolute* loads resulting in a difference in relative loads that approached significance. Corps reported performing different tasks while carrying loads. These different tasks were associated with different loads.

CONCLUSIONS

The loads carried by Australian Army soldiers on operations varies between corps as do the contexts in which these loads are carried. While some individual differences (gender and body weight) in load carriage (absolute or relative) requirements may exist, these findings highlight the potential benefits of task and trade specific physical employment standards.

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